APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/664,147	09/18/2000	Nathan F. Raciborski	193696-000500US	6650

7590	06/10/2005

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EXAMINER
PARTON, KEVIN S

ART UNIT	PAPER NUMBER
2153	

DATE MAILED: 06/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/664,147	RACIBORSKI ET AL.
	Examiner	Art Unit	
	Kevin Parton	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>08 March 2005</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20 and 22-24* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20 and 22-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   In a response filed 03/08/2005, the applicant objected to the Official Notice

taken by the examiner in the previous Office Action and requested objective

proof as required by MPEP 2144.03. As provided for in this section of the MPEP,

the new reference has been cited below and the action is made final.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described
> as set forth in section 102 of this title, if the differences between the subject matter sought to
> be patented and the prior art are such that the subject matter as a whole would have been
> obvious at the time the invention was made to a person having ordinary skill in the art to which
> said subject matter pertains. Patentability shall not be negatived by the manner in which the
> invention was made.

3.   Claims 1-4, 6-8, 10, 14, 15, 17, 18, and 22-24 are rejected under 35

U.S.C. 103(a) as being unpatentable over Kangsharju in view of Multer et al.

(USPN 6,694,336).

4.   Regarding claim 1, Kangasharju et al. teach a system for reporting status

information from a plurality of content exchanges to a remote system, the system

comprising:

> a. A server at the remote location including a plurality of content
>
>   objects (abstract; page 5, column 2, paragraph 4).
>
> b. A first content exchange comprising a first subset of content
>
>   portions of the plurality of content objects, the first subset
>
>   obtained from the server (abstract, lines 1-3; page 2, column 2,

paragraph 3). Note that in the reference, cache servers are

content exchanges.

c. A second content exchange comprising a second subset of

content portions the plurality of content objects (abstract, lines

1-3; page 2, column 2, paragraph 3).

d. A first datalink that transports a first catalog of the first subset

between the first content exchange and a server (page 5,

column 2, paragraph 4; page 6, column 1, paragraph 1).

e. A second datalink that transports a second catalog of the

second subset between the second content exchange and a

server (page 5, column 2, paragraph 4; page 6, column 1,

paragraph 1).

Although the system disclosed by Kangasharju shows substantial features

of the claimed invention, it fails to disclose specifically means wherein the

content exchanges return catalog information to the same server from which the

content object portions are obtained.

Nonetheless, these features are well known in the art and it would have

been an obvious modification of the system disclosed by Kangasharju as

evidenced by Multer et al. (USPN 6,694,336).

In an analogous art, Multer et al. (USPN 6,694,336) discloses a system for

data transfer and synchronization wherein the content exchanges return catalog

information to the same server from which the content object portions are

obtained (abstract; column 3, lines 63-67; column 4, lines 13-20; column 8, lines 34-39).

Given the teaching of Multer et al. (USPN 6,694,336), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Kangasharju by sending the catalogs of the content exchanges back to the server that houses the original content. This benefits the system by allowing the remote server to automatically update the content exchanges as well as notify other connected caches about the contents stored on the updated content exchanges.

5.   Regarding claim 2, Kangasharju teach all the limitations as applied to claim 1. They further teach means wherein the first and second catalogs comprise a plurality of entries (page 6, column 1, paragraph 2). Note that content updates can be sent in batches.

6.   Regarding claim 3, Kangasharju teach all the limitations as applied to claim 2. They further teach means wherein at least one of the plurality of entries comprises a content object filename, a path, and a server name (page 6, column 1, paragraph 2). Note that web page information is stored, this necessarily includes a server name, path, and filename for each object cached.

7.   Regarding claim 4, Kangasharju teach all the limitations as applied to claim 1. They further teach means wherein at least one of the first and second datalinks transport over the Internet (page 6, column 1, paragraph 2).

8.   Regarding claim 6, Kangasharju teach all the limitations as applied to claim 1. They further teach means wherein the first datalink transports status

information relating to the first content exchange (abstract; page 2, column 1, paragraph 3).

9.   Regarding claim 7, Kangasharju teach all the limitations as applied to claim 1. They further teach means wherein at least one of the first and second content exchanges checks an operational status of the server (page 2, column 1, paragraph 1).

10.   Regarding claim 8, Kangasharju teach a system for reporting information to remote locations in a content distribution system with means for:

   a. Determining, at a content exchange, a first catalog of a first plurality of content object portions obtained from a first server at a first remote location (page 5, column 2, paragraph 4; page 6, column 1, paragraph 2).

   b. Determining, and the content exchange, a second catalog of a second plurality of content object portions obtained from a second server at a second remote location (page 5, column 2, paragraph 4; page 6, column 1, paragraph 2).

   c. Transporting the first catalog to a remote location (page 5, column 2, paragraph 4; page 6, column 1, paragraph 2).

   d. Transporting the second catalog to a remote location (page 5, column 2, paragraph 4; page 6, column 1, paragraph 2).

   e. Detecting changes to one of the first and second catalogs (page 6, column 1, paragraph 2).

       f. Transporting the changes to a remote location (page 6, column

          1, paragraph 2).

       f. paragraph 1).

Although the system disclosed by Kangasharju shows substantial features

of the claimed invention, it fails to disclose specifically means wherein the

content exchanges return catalog information to the same server from which the

content object portions are obtained.

Nonetheless, these features are well known in the art and it would have

been an obvious modification of the system disclosed by Kangasharju as

evidenced by Multer et al. (USPN 6,694,336).

In an analogous art, Multer et al. (USPN 6,694,336) discloses a system for

data transfer and synchronization wherein the content exchanges return catalog

information to the same server from which the content object portions are

obtained (abstract; column 3, lines 63-67; column 4, lines 13-20; column 8, lines

34-39).

Given the teaching of Multer et al. (USPN 6,694,336), a person having

ordinary skill in the art would have readily recognized the desirability and

advantages of modifying Kangasharju by sending the catalogs of the content

exchanges back to the server that houses the original content. This benefits the

system by allowing the remote server to automatically update the content

exchanges as well as notify other connected caches about the contents stored

on the updated content exchanges.

11.   Regarding claim 10, Kangasharju teach all the limitations as applied to

claim 8. They further teach means for reporting t the first and second servers

status information at a predetermined interval (page 5, column 2, paragraph 4;

page 6, column 1, paragraph 2). Note that the batch sending allows a cache to

set an interval after which data will be sent.

12.   Regarding claim 14, teach all the limitations as applied to claim 8. They

further teach means wherein the transporting comprises transporting via the

Internet (page 6, column 1, paragraph 2).

13.   Regarding claim 15, Kangasharju teach a system for tracking information

in a content distribution system with means for:

> a. Receiving, at a server, a first content catalog of first content
>
> object portions from a first remote computer, the first content
>
> object portions obtained by the first remote computer from a
>
> server (page 5, column 2, paragraph 4; page 6, column 1,
>
> paragraph 2).
>
> b. Receiving, at a server, a second content catalog of second
>
> content object portions from a second remote computer, the
>
> second content object portions obtained by the second remote
>
> computer from a server (page 5, column 2, paragraph 4; page 6,
>
> column 1, paragraph 2).
>
> c. Updating a content database with information from the first and
>
> second content catalogs (page 5, column 2, paragraph 4; page
>
> 6, column 1, paragraph 2).

d. Receiving a third content catalog from the first remote computer that is different from the first content catalog (page 5, column 2, paragraph 4; page 6, column 1, paragraph 2).

e. Receiving a fourth content catalog from the second remote computer that is different from the second content catalog (page 5, column 2, paragraph 4; page 6, column 1, paragraph 2).

f. Updating the content database with information from the third and fourth content catalogs (page 5, column 2, paragraph 4; page 6, column 1, paragraph 2). Note that the nature of updating requires that when a new catalog comes in, it replaces the information that has changed from the previous catalog.

g. paragraph 1).

Although the system disclosed by Kangasharju shows substantial features of the claimed invention, it fails to disclose specifically means wherein the content exchanges return catalog information to the same server from which the content object portions are obtained.

Nonetheless, these features are well known in the art and it would have been an obvious modification of the system disclosed by Kangasharju as evidenced by Multer et al. (USPN 6,694,336).

In an analogous art, Multer et al. (USPN 6,694,336) discloses a system for data transfer and synchronization wherein the content exchanges return catalog information to the same server from which the content object portions are

obtained (abstract; column 3, lines 63-67; column 4, lines 13-20; column 8, lines 34-39).

Given the teaching of Multer et al. (USPN 6,694,336), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Kangasharju by sending the catalogs of the content exchanges back to the server that houses the original content. This benefits the system by allowing the remote server to automatically update the content exchanges as well as notify other connected caches about the contents stored on the updated content exchanges.

14.   Regarding claim 17, Kangasharju teach all the limitations as applied to claim 15. They further teach means for receiving status information related to one of the first and second remote computers (page 5, column 2, paragraph 4; page 6, column 1, paragraph 2).

15.   Regarding claim 18, Kangasharju teach all the limitations as applied to claim 15. They further teach means for providing status information to the first and second computers (page 5, column 2, paragraph 4; page 6, column 1, paragraph 2).

16.   Regarding claim 22, Kangasharju teach all the limitations as applied to claim 1. They further teach means wherein accessing a content object includes accessing a first content object portion from one of the first subset of the first plurality of content object portions and the second subset of the second plurality of content object portions, and a second content object portion from one of the first plurality of content object portions and the second plurality of content object

portions (abstract, lines 1-3; page 2, column 2, paragraph 3; page 5, column 2,
paragraph 4; page 6, column 1, paragraph 1). Note that given the wording of this
claim, all content object portions may reside in the same subset.

17.   Regarding claim 23, Kangasharju teaches all the limitations as applied to
claim 1. They further teach means wherein the first subset of the plurality of
content object portions includes a first portion of a first content object and the first
sybset does not include a second portion of the first content object (page 5,
column 2, paragraph 4; page 6, column 1, paragraph 1).

18.   Regarding claim 24, Kangasharju teaches all the limitations as applied to
claim 1. They further teach means wherein the content object is one of a content
file and a content stream (page 5, column 2, paragraph 4; page 6, column 1,
paragraph 1).

19.   Claims 5, 9, 11, 13, 16, 19, and 20 are rejected under 35 U.S.C. 103(a) as
being unpatentable over Kangasharju et al. (1999) in view of Chase et al. (EP 0
877 326 A2).

20.   Regarding claim 5, although the system disclosed by Kangasharju et al.
(1999) (as applied to claim 1) shows substantial features of the claimed
invention, it fails to disclose means wherein the first subset of the first plurality of
content object portions is purged from the first content exchange when the server
becomes unavailable.

        Nonetheless, these features are well known in the art and would have
been an obvious modification of the system disclosed by Kangasharju et al.
(1999), as evidenced by Chase et al. (EP 0 877 326 A2).

In an analogous art, Chase et al. (EP 0 877 326 A2) disclose a system for distributed caching of web accessible data wherein the first subset of the first plurality of content object portions is purged from the first content exchange when the server becomes unavailable (figure 4, element 400).

Given the teaching of Chase et al. (EP 0 877 326 A2), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Kangasharju et al. (1999) by employing the purging of cache information when the origin server is no longer available. This benefits the system by causing users to realize the origin server is no longer in operation and that they are no longer able to view the information that was cached. Note that this would be a consequence of sending updates to the origin server of what was being saved.

21.   Regarding claim 9, Kangasharju et al. (1999) teach all the limitations as applied to claim 8. They further teach means for determining the first server is unavailable (page 5, column 2, paragraph 4; page 6, column 1, paragraph 2). Note that in the reference, the client would know the status of the server upon request.

Although the system disclosed by Kangasharju et al. (1999) shows substantial features of the claimed invention, it fails to disclose means for purging the first plurality of content object portions in response to the determining the first server is unavailable.

Nonetheless, these features are well known in the art and would have

been an obvious modification of the system disclosed by Kangasharju et al.

(1999), as evidenced by Chase et al. (EP 0 877 326 A2).

In an analogous art, Chase et al. (EP 0 877 326 A2) disclose a system for

distributed caching of web accessible data with means for purging the first

plurality of content object portions in response to the determining the first server

is unavailable (figure 4, element 400).

Given the teaching of Chase et al. (EP 0 877 326 A2), a person having

ordinary skill in the art would have readily recognized the desirability and

advantages of modifying Kangasharju et al. (1999) by employing the purging of

cache information when the origin server is no longer available. This benefits the

system by causing users to realize the origin server is no longer in operation and

that they are no longer able to view the information that was cached. Note that

this would be a consequence of sending updates to the origin server of what was

being saved.

22.   Regarding claim 11, although the system disclosed by Kangasharju et al.

(1999) (as applied to claim 8) shows substantial features of the claimed

invention, it fails to disclose means for reporting to the first and second servers

an impending unavailability of a content exchange.

Nonetheless, these features are well known in the art and would have

been an obvious modification of the system disclosed by Kangasharju et al.

(1999), as evidenced by Chase et al. (EP 0 877 326 A2).

In an analogous art, Chase et al. (EP 0 877 326 A2) disclose a system for distributed caching of web accessible data with means for reporting to the first and second servers an impending unavailability of a content exchange (figure 4, element 400).

Given the teaching of Chase et al. (EP 0 877 326 A2), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Kangasharju et al. (1999) by employing the notification of a soon to be unavailable machine. This benefits the system by allowing the server to avoid holding information on caches that may be corrupted or emptied when they became unavailable.

23.   Regarding claim 13, although the system disclosed by Kangasharju et al. (1999) (as applied to claim 8) shows substantial features of the claimed invention, it fails to disclose means for purging information from a content location database when a content exchange becomes unavailable.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Kangasharju et al. (1999), as evidenced by Chase et al. (EP 0 877 326 A2).

In an analogous art, Chase et al. (EP 0 877 326 A2) disclose a system for distributed caching of web accessible data with means for purging information from a content location database when a content exchange becomes unavailable (figure 4, element 400).

Given the teaching of Chase et al. (EP 0 877 326 A2), a person having ordinary skill in the art would have readily recognized the desirability and

advantages of modifying Kangasharju et al. (1999) by employing the purging of

information relating to an unavailable host or intermediate cache. This benefits

the system by allowing the server to avoid holding information on caches that

may have been corrupted or emptied when they became unavailable.

24.   Regarding claim 16, although the system disclosed by Kangasharju et al.

(1999) (as applied to claim 15) shows substantial features of the claimed

invention, it fails to disclose means for updating the content database when one

of the first and second remote computers is unavailable.

Nonetheless, these features are well known in the art and would have

been an obvious modification of the system disclosed by Kangasharju et al.

(1999), as evidenced by Chase et al. (EP 0 877 326 A2).

In an analogous art, Chase et al. (EP 0 877 326 A2) disclose a system for

distributed caching of web accessible data with means for updating the content

database when one of the first and second remote computers is unavailable

(figure 4, element 400).

Given the teaching of Chase et al. (EP 0 877 326 A2), a person having

ordinary skill in the art would have readily recognized the desirability and

advantages of modifying Kangasharju et al. (1999) by employing the updating of

information relating to an unavailable host or intermediate cache. This benefits

the system by allowing the server to avoid holding information on caches that

may have been corrupted or emptied when they became unavailable.

25.   Regarding claim 19, although the system disclosed by Kangasharju et al.

(1999) (as applied to claim 15) shows substantial features of the claimed

invention, it fails to disclose means for notifying the first and second computers of

impending unavailability.

Nonetheless, these features are well known in the art and would have

been an obvious modification of the system disclosed by Kangasharju et al.

(1999), as evidenced by Chase et al. (EP 0 877 326 A2).

In an analogous art, Chase et al. (EP 0 877 326 A2) disclose a system for

distributed caching of web accessible data with means for notifying the first and

second computers of impending unavailability (figure 4, element 400).

Given the teaching of Chase et al. (EP 0 877 326 A2), a person having

ordinary skill in the art would have readily recognized the desirability and

advantages of modifying Kangasharju et al. (1999) by informing intermediate

caches of an unavailable server. This benefits the system by allowing the

computers to no longer hold cached information from an unavailable server that

may be in update or not coming back online.

26.   Regarding claim 20, although the system disclosed by Kangasharju et al.

(1999) (as applied to claim 15) shows substantial features of the claimed

invention, it fails to disclose means for receiving notification from one of the first

and second computers of impending unavailability.

Nonetheless, these features are well known in the art and would have

been an obvious modification of the system disclosed by Kangasharju et al.

(1999), as evidenced by Chase et al. (EP 0 877 326 A2).

In an analogous art, Chase et al. (EP 0 877 326 A2) disclose a system for

distributed caching of web accessible data with means for receiving notification

from one of the first and second computers of impending unavailability (figure 4, element 400).

Given the teaching of Chase et al. (EP 0 877 326 A2), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Kangasharju et al. (1999) by informing the server of unavailable intermediate caches. This benefits the system by allowing the server to avoid holding information on caches that may have been corrupted or emptied when they became unavailable.

27.   Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kangasharju et al. (1999) (as applied to claim 8) in view of Tsirigotis et al. (EP 0 847 020 A2).

28.   Regarding claim 12, although the system disclosed by Kangasharju et al. (1999) (as applied to claim 8) shows substantial features of the claimed invention, it fails to disclose means for:

      a. Receiving a preload command.

      b. Preloading at least one content object portion from a remote server in response to receiving the preload command.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Kangasharju et al. (1999), as evidenced by Tsirigotis et al. (EP 0 847 020 A2).

In an analogous art, Tsirigotis et al. (EP 0 847 020 A2) discloses a system for distributed caching with means for:

      a. Receiving a preload command (column 2, lines 30-32).

    b. Preloading at least one content object portion from a remote

       server in response to receiving the preload command (column

       2, lines 21-36).

Given the teaching of Tsirigotis et al. (EP 0 847 020 A2), a person having

ordinary skill in the art would have readily recognized the desirability and

advantages of modifying Kangasharju et al. (1999) by employing the preloading

of content. This benefits the system by allowing users to have faster access to

information that they are most likely to request.

Conclusion

29.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of

time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire

THREE MONTHS from the mailing date of this action. In the event a first reply is

filed within TWO MONTHS of the mailing date of this final action and the advisory

action is not mailed until after the end of the THREE-MONTH shortened statutory

period, then the shortened statutory period will expire on the date the advisory

action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

calculated from the mailing date of the advisory action. In no event, however, will

the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

Any inquiry concerning this communication or earlier communications from

the examiner should be directed to Kevin Parton whose telephone number is

(571)272-3958. The examiner can normally be reached on M-F 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (571)272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin Parton
Examiner
Art Unit 2153

ksp

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SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100